

November 16, 1953

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Dear Ethelyn:

Before you find yourself too deeply preoccupied with Thanksgiving turkey (which I hope you will enjoy as much as ever), could you do me a favor?

I am getting back now to single-cell and cytological studies of Hfr x F-matings, with some interesting results. I am surprised to see now that I have for a long time overlooked some of the implications of the already available data on the mechanism of this mating, at least vis-a-vis the Watson-Hayes partial gamete theory. From some of these crosses, colonies could be recovered which contained not only recombinants (usually detected as Lac+S<sup>r</sup>) but also both parents (Lac+S<sup>s</sup> as well as Lac-S<sup>r</sup>). The question still has to be settled whether such synkaryon colonies do actually issue from single cells, a point I am reviewing right now.

At any rate, your own data on single cell isolations of W-1895 x W-1956 would be relevant and should be included in the final tabulations. As best I can read your notes, I infer that most of the single cell clones were, unfortunately plated directly on EMB Lac sm agar, to detect recombinants, so that the persistence of the Lac+ S<sup>s</sup> (Hfr) parent would not be revealed. However, I have a distinct recollection of an experiment in which only the two parents were recovered from a single cell, presumably from a plating on EMB Lac without sm. Could this have been your experiment 7/15/52? I could find no record that the Lac+ components were actually tested with sm and found to be S<sup>s</sup>, though your tabulation would imply that they were.

I would appreciate it if you could review the notes that I am enclosing to summarize the results with the following information on each experiment:  
A) Character of cross: presumably W-1895 x W-1956, but any treatments, TZ??  
B) Medium of initial plating of clone (+ or - sm). C) Incidence of Lac+, Lac- and, where relevant, their S character. Did you save any of these isolates? I could not find them in the frig', though your H-267 segregants are still here.

A good part of the fruits of your labors here is beginning to make sense, and it would be wise to consolidate them to the view of eventual publication. If you have the occasion or opportunity to visit Madison again for a day or two, I would like to be able to review these notes with you so that the information is not lost. We can probably arrange to pay any extra-ordinary expenses. Seymour is driving up for Thanksgiving— you might return these notes with him, if they are ready. If you can decide sooner about the 7/15 result, I'd like to hear about it.

With best wishes,

Joshua Lederberg